

**Notice of Allowability**

Application No.

10/056,789

Examiner

Oanh Duong

Applicant(s)

KOPRIVICA, MILOSH

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/24/2006.
2. ☒ The allowed claim(s) is/are 1-13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 06/09/2006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
SALEH NAJJAR  
SUPERVISORY PATENT EXAMINER

### DETAILED ACTION

1. Claims 1-13 are allowed.

### INTERVIEW SUMMARY

2. Applicant's representative, Wan-Ching Montfort (Registration No. 56,127) authorized examiner to amend claims, as indicated below, to place the application in condition for allowance.

### REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

The invention as claimed, claims 1 and 10 specially include limitation based on *transmitting the plurality of sub-packets and the message integrity field value to a receiver over a communication link for the pre-determined number of times is implemented to provide a highly robust broadcast communication link **without requiring the receiver to send back an acknowledge signal when the long length data message is determined to be received correctly.*** Although system and method for communicating packets in a presence of interference by transmitting the packets over a network for multiple times is firmly documented by cited prior art, the *transmitting the plurality of sub-packets and the message integrity field value to a receiver over a communication link for a pre-determined number of times is implemented to provide a highly robust broadcast communication link **without requiring the receiver to send***

***back an acknowledge signal when the long length data message is determined to be received correctly*** is novel, and the invention is patentable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **EXAMINER'S AMENDMENT**

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Wan-Ching Montfort (Registration No. 56,127) on June 8, 2006.

The specification of the invention is amended as follows:

In page 14, line 3, add "Figure 7 is a flow chart showing a method for reliable unacknowledged communication of long length data messages in accordance with the present invention. The description of this drawing is consistent with those of Figures 5 and 6 mentioned above".

The claims are amended as follows:

1. (Currently Amended) A method for reliable unacknowledged communication of a long length data message[[s]] transmitted in a ~~the~~ presence of interference, the method comprising the steps of:

dividing contents of the ~~[[a]]~~ long length data message into a plurality of subpackets of predetermined size;

incorporating a subpacket error detection field into each of the plurality of subpackets;

calculating a value of a message integrity field indicative of the contents of the ~~plurality of the subpackets~~ long length data message;

incorporating the value of the message integrity field ~~value~~ into one of the plurality of subpackets;

transmitting the plurality of subpackets and the value of the message integrity field to at least one receiver over a communications link for a predetermined number of times;

storing at least one of the plurality of subpackets by the at least one receiver when the subpacket error detection field of the at least one of the plurality of subpackets received by the at least one receiver indicates that the at least one of the plurality of subpackets ~~[[it]]~~ has been received without error;

calculating a message integrity field value of the stored at least one of the plurality of subpackets; and

determining that the long length data message has been correctly received when

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the message integrity field value of the stored at least one of the plurality of subpackets corresponds to the transmitted value of the ~~transmitted~~ message integrity field,

wherein said transmitting the plurality of subpackets and the value of the message integrity field to at least one receiver over a communication link for the pre-determined number of times is implemented to provide a highly robust broadcast communication link without requiring the at least one receiver a need of to sending back an acknowledge signal when the long length data message is determined to be received correctly.

10. (Currently Amended) A frequency hopping communications system for reliably broadcasting a long length data packet in the a presence of interference sources, the system comprising:

a plurality of subpackets into which contents of the long length data packet are divided, each of the plurality of subpackets includes ~~including~~ an error detection field for evaluating an accuracy of said each of the plurality of ~~that particular~~ subpackets when transmitted;

a message integrity field being included in at least one of the plurality of subpackets, said message integrity ~~which~~ field is calculated to include compressed information describing data contained within the plurality of subpackets;

a transmitter for broadcasting that broadcasts said each of the plurality of subpackets for a predetermined number of times;

at least one receiver for receiving and modulating ~~that receives and demodulates~~

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~~the transmitted~~ said each of the plurality of subpackets;

a memory register associated with the at least one receiver for storing into which  
at least one of the plurality of subpackets when the error detection field of the at least  
one of the plurality of subpackets indicates that the at least one of the plurality of  
subpackets has been accurately received are stored;

a packet completion evaluator for calculating a message integrity value of the  
stored at least one of the plurality of subpackets ~~which performs a calculation by which~~  
~~a message integrity value is determined~~ based upon the contents of the memory  
register~~[[;]]~~, and ~~indicates~~ determining that ~~[[a]]~~ the long length data packet has been  
correctly received when ~~the~~ a result of the calculation calculating a message integrity  
value of the stored at least one of the plurality of subpackets matches the message  
integrity field received in the transmitted plurality of subpackets;

~~whereby~~ when the long length data packet is determined to be correctly received,  
the data within the correctly received long length data packet is subsequently processed  
by the at least one receiver without sending an acknowledge signal back to the  
transmitter,

wherein said broadcasting said each of the plurality of subpackets for the  
predetermined number of times is implemented to provide a highly robust broadcast  
communication link without requiring the at least one receiver to send feed back when  
the long length data packet is determined to be received correctly.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oanh Duong whose telephone number is (571) 272-3983. The examiner can normally be reached on M-F, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.D  
June 9, 2006

  
SALEH NAJJAR  
SUPERVISORY PATENT EXAMINER